

Zoology of Western Africa, no less than 400 appear to be peculiar to this part of the continent; 150 occur also in North-east Africa; 64 are also found in South Africa; the remaining 140 appear to be pretty well dispersed over the continent, since they are met with in North-eastern, Western, and Southern Africa. Of the 124 *Accipitres* which are known to occur on the African continent, 56 are met with in Western Africa; but, singularly enough, no examples of the genera *Gypogeryon*, *Polyboroides*, or *Helotarsus*, which are the three most characteristic African types of this order.

Of *Passeres* we have notice of no less than 450 species, among which are members of many remarkable genera—such as *Meropiscus*, *Parinia*, *Ixonotus*, *Striphornis*, *Pæoptera*, *Hypergerus*, *Bias*, *Megabias*, *Elminia*, *Artomyias*, *Erythrocerus*, *Lobotos*, *Chaunonotus*, *Picathartes*, and *Onychognathus*, which, as far as is hitherto known, are all peculiar to Western Africa. Of *Columbæ* 17 species; of *Galinae* 19, including members of the peculiar African genera *Numida*, *Agelastus*, and *Phasidus*. The two latter forms are restricted to Western Africa. The order *Struthiones* is worthily represented by the Ostrich.

Among the 99 species of *Grallæ* contained in Dr. Hartlaub's list, the most eccentric form is perhaps Temminck's Ralline genus *Himantornis*, discovered by Pel in Ashantee. Lastly, 42 species of *Anseres* conclude the series of West African birds.

*Popular History of the Aquarium of Marine and Freshwater Animals and Plants.* By GEORGE BRETtingham SOWERBY, F.L.S. 12mo. London, Reeve, 1857.

If we may apply to some of our writers on science the old rule that "by their fruits ye shall know them," it would almost appear that they consider one of the great beauties of a popular work to consist in its resemblance to those complicated pieces of patchwork in which our grandmothers used to take so much pride. The prescription which they adopt in the manufacture of a book would seem to be somewhat as follows:—Take all the standard works on the subject to be treated of; transfer the choicest passages to a note-book; select those which suit you best; tack them together with as much of your own material as may be absolutely necessary; sprinkle in a few fragments of poetry (which you may easily pick up along with your other plunder); print and publish. The less trouble you take, the better, as you will the sooner be done and get your money: if the book sells, the publisher is satisfied; and as for the public, your conscience may be perfectly easy, for the matter you appropriate is far better than anything your own brains are capable of furnishing; so what right has anybody to complain? The only answer to the last question that we can think of at the moment, is that the authors of the works subjected to this shameless system of robbery may perhaps be foolishly inclined to think that it would be more to their advantage if the public would read their works in the original form, rather than in pirated extracts; but this we must leave to their consideration.

As far as we can judge from the results, it would appear that some very similar rule must have guided our author in his literary labours; and at all events, we may safely say that he is one of the greatest proficient in the art of scissors and paste. Of the little work whose title stands at the head of this article, nearly a third consists of acknowledged quotations from the works of Gosse, Johnston, Forbes, Bell, Dalyell, Baird, &c.; fully another third is abstracted, with more or less verbal alteration, from the same authorities, and the remainder is—twaddle.

In his preface Mr. Sowerby apologizes for his limited acquaintance with the "*Hydroid Zoophytes*," as well as with some other "animal organisms." If he had included the whole range of Zoology in this avowal of ignorance, he would have been nearer the mark. An utter want of knowledge is observable in almost every page: names are continually misspelt (as, for example, *Acephala* for *Acalepha*, which occurs in two or three places); Johnston's definition of Zoophytes, which applies to both the Polypes and Polyzoa, is given as belonging to the former only; and as if to make up for this, the four species of Polyzoa to which the author refers are placed, three of them with the Hydroid Zoophytes, and the fourth (*Alcyonidium*) with *Alcyonium*, amongst the Asteroida. Circumstances such as the presence of thread-cells in the Polypes, are also referred to repeatedly as peculiar to certain species, simply because they are mentioned in some quotation, although the author informs his readers at the outset (in a passage borrowed from Gosse) that this is the case in all Polypes. There are some curious confessions of ignorance in different parts of the work, as, for instance, at p. 209, where we find that the author's "only opportunity of observing a living specimen of the Entomostracous division of Crustacea was that afforded me by the attendant at the Zoological Society's Fish-house, who had just taken from a pike a specimen of *Argulus foliaceus*."

This primitive ignorance, of which there is abundant proof, would perhaps have been of less importance had the author taken the trouble to study his subject as he went on; but the idea that there was any necessity for such an exertion as this appears never to have entered his mind. Even the portions copied with modifications from other works are often disfigured by considerable blunders, as, for example, in the following beautifully intelligible passage (p. 164), which is evidently derived from Forbes's Star-fishes. After speaking of the oral and anal openings of the Echinodermata, our author tells us that "whatever relative positions these two openings take, the intestinal canal leading from one to the other is winding, and is attached to the inside of the shelly case by means of what is called an integument (!), as well as all the internal lining, with vibratile cilia, and which is connected with the function of respiration. They are believed to possess also a muscular apparatus, which has pulsations and branching veins connected with it, like the heart in more advanced animals." We need not dwell on the elegance and perspicuity of these passages, but the muscular apparatus which has "pulsations connected with it" would be a curiosity to see.

We find in the preface that to make up for the numerous quotations on those branches of science of which the author confesses himself to possess an imperfect knowledge, "other parts of the work contain more original observations and opinions, many of which will be new to the reader." We do not know whether the statement at p. 288, that the author has "seen the heads of common Mackerel shining brightly in a dark cellar," is one of these new observations; but his application of the fact to the establishment of the luminosity of fish in the sea, is certainly novel, as is also the implied statement that *Pyrosoma* is a fish, given on the same page. One of the "original" opinions is undoubtedly that expressed at p. 241, which attempts to account for the production of Hermit-crabs by the accidental introduction of the larval form of some common Crab into empty shells. Mr. Sowerby has not yet made the necessary experiments for the establishment of this theory, and "in the meanwhile we must," as he advises us, "be content to take the obvious facts as we find them."

Some of the animals referred to appear to us to be very absurdly introduced into a book on the Aquarium. Such are especially the freshwater Tortoises, Turtles, and Alligators, none of which are within the reach of the ordinary possessors of aquaria. Still more ridiculous is the introduction of an account, two pages in length, of Professor Owen's *Euplectella*, a sponge from the Philippine Islands, which Mr. Sowerby seems to hope may yet be seen "living and flourishing in our tanks." What interest Mr. Sowerby can possibly have in the matter we cannot tell; he would certainly know no more about *Euplectella* after seeing it, than he does now by simply reading about it.

We might without much trouble extend our list of Mr. Sowerby's errors, but such a treatment of such a work would be almost like breaking a fly upon the wheel, an operation which we have no desire to imitate. We have, indeed, already devoted to it far more space than it deserves on any consideration, except as it furnishes such a striking example of that wholesale and disgraceful pillage of standard works on science, by ignorant and careless compilers, which now threatens to become so much the fashion. Considering the number of works of all prices already existing upon the same subject, we cannot think that the present book was necessary on public grounds; and if the necessities of his series compelled Mr. Reeve to bring out a work on the "Aquarium," he ought at least to have taken care that the workman to whom he confided its production was rather more a master of his craft than the one whose literary offspring we have just been examining. We must add, that the volume, which is one of Mr. Reeve's popular series, is as usual illustrated by twenty coloured plates. These are drawn on stone by the author, and most of the figures are tolerably effective. One or two, however, are bad, especially that representing the Newts and Water-beetle, which is positively a ridiculous caricature.